



Massachusetts Urban & Community Forestry Program

# The Citizen Forester

FEBRUARY 2015

## 102<sup>nd</sup> Annual Massachusetts Tree Wardens' and Foresters' Association Conference

By Rick W. Harper      On Tuesday, January 13, and  
Wednesday, January 14, the Massa-

**chusetts Tree Wardens' and Foresters' Association** (MTWFA) hosted nearly 300 attendees and nearly 33 exhibitors at the Host Hotel in Sturbridge. The two-day event featured a trade show floor filled with exhibitors displaying equipment, technology, and literature for sale and for giveaway, and educational sessions with a roster of internationally-renowned speakers. In addition to the annual business meeting and informative lectures, the conference also featured door prizes, opportunities for networking, and a lunchtime awards ceremony.

The 2015 Seth H. Swift Tree Warden of the Year Award was awarded to Aggie Tuden, Tree Warden from the City of Medford. This award was created in 2000 to recognize individual tree wardens who exhibit notable leadership, dedication, and commitment to the profession.

The individual must hold the position of Tree Warden in their municipality, their community must actively participate in the Arbor Day Foundation's Tree City USA program and, among other criteria, the individual must demonstrate active leadership and dedication to the protection of urban trees, including outreach and education to community members. The recipient is presented with a sculpture of a silver, windswept tree and an announcement online and in the quarterly newsletter, *The Bark*.

Congratulations, Aggie!

### Up Ahead:

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Speakers on the first day included state specialists from the Massachusetts Department of Conservation and Recreation, Julie Coop and Ken Gooch. Julie discussed community reforestation initiatives in Gateway Cities, the annual Arbor Day Poster Contest, new DCR factsheets, and gave some additional urban and community forestry program updates. Ken Gooch provided an update on forest

health activities in the state, including results of the aerial surveys for defoliation in the state and the latest on Asian longhorned beetle, emerald ash borer, winter moth, and the cynipid gall wasp on Cape Cod and the islands – four invasive insects present in Massachusetts that are known to devastate trees.

Dr. Ben Weil of the UMass Amherst Department of Environmental Conservation (ECO) presented results of research on the energy benefits of trees, and Rick Harper, also of ECO, provided a UMass Urban Forestry program update. Dr. Nick Brazee, UMass Extension Pathologist and Plant Diagnostic Director, provided an update on woody plant diseases he saw in his lab in 2014. According to Dr. Brazee, in 2014 many plants were damaged by the severe winter and 2014 was a banner year for diseases of importance, including fireblight, phytophthora, and certain needle cast pathogens. Insects that were numerous included bagworm and various scale insects. Dr. Kevin T. Smith, U.S. Forest Service, discussed the fundamentals of tree decay fungi, including armillaria, chlorociboria, and others.

**The keynote speaker for this year's conference was Dr. John Ball, Professor and Extension Specialist from South Dakota State University.** Dr. Ball provided a wealth of information about safe work practices and warned attendees about common missteps and mistakes that can result in worker injury and even fatality. He reiterated that tree-related work is considered to be among the most dangerous professions, alongside commercial fishing, and that it is believed that there were 145 fatalities associated with the arboriculture/urban forestry profession in 2014, based on emergency room statistics. He also indicated that chainsaws are the #1 mechanism behind non-fatal injuries.

On the second day, attendees learned about restoration of the American chestnut from Kendra Gurney of the

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American Chestnut Foundation. She updated attendees on the status of an available chestnut blight-resistant breeding line and the development of seed orchards in Massachusetts and New England. It is hoped that tree enthusiasts will be able to access American chestnut trees for planting in the not-so-distant future, so stay tuned!

After lunch, attendees settled in for an unsettling talk on ticks from Larry Dapsis, tick specialist and entomologist with the Cape Cod Cooperative Extension. Attendees learned about different ticks in Massachusetts, the tick life cycle, hosts, risk of infection, diseases, and ways to protect yourself from tick bites and your yard from ticks.

For further information about the conference and to see some of the presentations that were delivered, visit the MTWFA website at: [www.masstreewardens.org](http://www.masstreewardens.org). Congratulations to the MTWFA on the completion of yet another successful annual conference – 102 years and still growing strong!

## Congratulations Rick!!!



At the Massachusetts Tree Wardens' and Foresters' Association 102 Annual Conference in January, outgoing president David Lefcourt awarded Rick Harper with the President's Award for Rick's outstanding service to the organization and the president. Congratulations, Rick!

## Webcasts

### Urban Forestry Today Noon Hour Webcast Winter Series

#### An Introduction to Structural Soils: Research, Development, and Performance

Wednesday, February 25, 2015  
12:00 p.m. – 1:00 p.m. (EST)

As urban foresters and arborists strive to improve urban tree health and longevity, the use of subsurface techniques and technologies, like engineered soils, continue to increase in popularity. Join us for this two-part series as we hear Dr. Nina Bassuk, Professor and Director of **Cornell's Urban Horticulture Institute**, discuss the vision and science behind the development of CU Structural Soil and what the latest research reveals about its application and success in the urban forest.

To attend, individuals should visit [www.joinwebinar.com](http://www.joinwebinar.com) (and input code #435513119).

These webcasts are free and will offer the opportunity for Arborists to earn 1.0 ISA CEU and 0.5 MCA credit. For more information, contact: Rick Harper, Department of Environmental Conservation, University of Massachusetts, Amherst [rharp@eco.umass.edu](mailto:rharp@eco.umass.edu). Sponsored by the University of Massachusetts Department of Environmental Conservation, in cooperation with the Massachusetts Tree Wardens' & Foresters' Association, University of Massachusetts Extension, and the Massachusetts Department of Conservation and Recreation.

#### Structural Soils in the Urban Environment:

#### **The Practitioner's Perspective**

Thursday, March 26, 2015  
12:00 p.m. – 1:00 p.m. (EST)

Join us for the final installment in this two-part series as we hear from Andrew Hillman, Community Forestry Consultant/Urban Forestry Coordinator with the Davey Resource Group, as he highlights his many years of work overseeing and implementing planting projects that have involved CU Structural Soil in Ithaca, NY, and around the world. Andy will discuss his first-hand observations relating to the do's and don'ts of using CU SS as part of growing the urban forest.

To attend, individuals should visit [www.joinwebinar.com](http://www.joinwebinar.com) (and input code #689839007).

# Species Spotlight—Eastern hemlock, *Tsuga canadensis*

By Mollie Freilicher  
MA-DCR  
Community Action Forester

Eastern hemlock is often at the  
**top of “favorite tree” lists, and**  
with good reason, whether for

its graceful form, lush foliage, or its tolerance of pruning. The early landscape architect Andrew Jackson Downing wrote in “Rural Essays:”

We place the hemlock first, as we consider it beyond all question the most graceful tree grown in this country. There are few who have the least idea of its striking beauty when grown alone on a smooth lawn, its branches extending freely on all sides and sweeping the ground, its loose spray and full feather foliage floating freely in the air and its proportions full of the first symmetry and beauty.

Similarly, the American botanist, and the first director of the Arnold Arboretum, Charles S. Sargent simply stated,

**“No other conifer surpasses the hemlocks in grace and beauty.”**

Whether in a planted landscape or in the forest, eastern hemlock has a lot to offer.

Eastern hemlock, also known as Canadian or Canada hemlock, is native from southern Ontario, east to Nova Scotia, south to the mountains of northern Alabama, and west to eastern Minnesota.

Eastern hemlock is a long-lived tree that can live for hundreds of years. The oldest ring on a tree from near Tionesta, PA, showed the tree to be over 550 years old. Eastern hemlock typically grows to 70 feet tall, although it can grow taller. The current national champion, in Macon, NC, is 159 feet tall. Eastern hemlock is hardy in USDA zones 3b to 7, although it can suffer heat stress in the warmer parts of its range. Eastern hemlock is often found in pure stands, on slopes and mountainsides, and in other locations with adequate drainage and a cool, humid climate.

Eastern hemlock is evergreen, with a graceful, pyramidal habit, from youth to old age. Branches often droop toward the ground. Needles are two-ranked, flat, obtuse, ¼ to 1/8 inch long, with a dull tip. They are a shiny, dark green above, and have two rows

of white stomata visible on the underside, that look like white lines. The bark of eastern hemlock is flaky on young trees and develops into deep furrows with flat ridges. The twigs are gray, slender, and hairy. Eastern hemlock is monoecious with light-yellow male flowers, and light green female flowers. They form into small, ovoid cones, 1/4 to 1/2-inch long, that hang down at maturity.

Eastern hemlock thrives in acidic soil and tolerates pruning and is often used for evergreen hedges. It does not tolerate city conditions and pollution, so it is more suited to suburban or park locations. It is susceptible to numerous insects and diseases, including hemlock looper, spider mites, blights, cankers, rust, and of course, elongate hemlock scale (EHS, also known as Fiorinia scale) and hemlock wooly adelgid. Elongate hemlock scale is an armored scale from Japan that is present in Massachusetts. The waxy covering of the scale is visible on the underside of the needles, and the feeding damage causes yellowing and premature needle drop. Severe feeding from hemlock wooly adelgid can also cause tree health to decline. Researchers believe we are starting to see some resistance to hemlock wooly adelgid in Massachusetts; however managers should be cautious about planting eastern hemlock because of these pest concerns and the ongoing maintenance that may be required to keep the trees free of EHS and hemlock wooly adelgid. Elongate hemlock scale, in particular, can be difficult to manage.

Historically, tannin from the bark of eastern hemlock was used to process leather. Hemlock lumber was used in boxes, crates, roofing, and other building materials. The heyday of hemlock lumber production was between 1890-1910. More recently, hemlock has been used for pulp and paper. Hemlock is an important tree for wildlife due not only to its providing food for wildlife, but also for the habitat its dense shade creates. Some creatures that hemlock habitat supports include white-tailed deer, moose, red squirrels, snowshoe hares, black-throated green warblers, winter wrens, ovenbirds, and black-capped chickadees.



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Photos (clockwise, starting with Form): Form, Fruit, Flower, and Leaves: Virginia Tech.

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# Species Spotlight—Eastern hemlock, *Tsuga canadensis*

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Etymological tidbit on *Tsuga* from *Arnoldia*, Bulletin 3:

**“In the beginning of scientific botanical practice the hemlock was included with the pines. It was labeled *Pinus canadensis* by Linnaeus in 1763. Michaux, the French botanist, in 1796 grouped it with the firs and named it *Abies canadensis*, while later scientists included it with the spruces and called it *Picea canadensis*. It was the celebrated Austrian botanist, Stephan Ladislaus Endlicher (1804-1849) who in 1847 used the name “*Tsuga*” which is the Japanese name for the hemlock, as a section in his genus *Pinus*. Later Elie Abel Carrière (1816-1896), a famous French botanist, in 1855, classified all the hemlocks into a separate group under the generic name *Tsuga*. Thus this important section of our North American conifers bears a Japanese name, given by an Austrian, confirmed by a Frenchman and now accepted by scientists generally.”**



Virginia Tech.

Resources:

Hemlock and Hide: The Tanbark Industry in Old New York. Hugh O. Canham, Northern Woodlands, Summer 2011, <http://northernwoodlands.org/articles/article/hemlock-and-hide-the-tanbark-industry-in-old-new-york>.

*Tsuga canadensis*. USDA Silvics Manual, [http://www.na.fs.fed.us/pubs/silvics\\_manual/Volume\\_1/tsuga/canadensis.htm](http://www.na.fs.fed.us/pubs/silvics_manual/Volume_1/tsuga/canadensis.htm).

*Hemlock: A Forest Giant on the Edge*. David R. Foster, ed. Read an excerpt at:

<http://arnoldia.arboretum.harvard.edu/pdf/articles/2014-71-4-book-excerpt-hemlock-a-forest-giant-on-the-edge.pdf>.

## Ecological Landscape Alliance Conference 2015

Sustaining the Living Landscape: The 21st Annual ELA Conference & Eco-Marketplace  
February 25-26, 2015, MassMutual Center, Springfield, MA  
[Download Brochure](#)

The 2015 conference program offers many well-known speakers who are experts in their fields. Topics include plant response to climate and land use changes, designing with rating systems (SITES, LEED, and Living Building Challenge), exploring new fertilizer regulations, innovative stormwater management, and much, much more.

### Continuing Education Credits

Pesticide credits have been requested from the six New England states, NY, and PA. CEU credits have been requested from APLD, ASLA, ISA, LA CES, MAA, MLP, MNLA, NOFA OLCP, and others.

More information at [www.ecolandscaping.org](http://www.ecolandscaping.org).

## 2015 Mass Land Conservation Conference

When: Saturday, March 21, 2015 | 8:00 a.m. – 4:00 p.m.

Where: Worcester Technical High School,  
One Skyline Drive, Worcester, MA

[Register Online here](#)

This annual, day-long training and networking event provides land trust board members and staff, parks administrators and advocates, colleagues from federal, state, and local government agencies, students, and philanthropists an opportunity to participate in a full day of workshops and discussions that focus on fostering healthy communities in MA through land conservation. Join your colleagues in land conservation and acquire the information, skills, and connections you need to be most effective. More information is available at <http://www.massland.org/conference>.

## Central Mass Lyme Conference

Saturday, March 21, 2015, 9:00 a.m. - 4:00 p.m.  
Quinsigamond Community College, Worcester, MA

Attend the first ever Lyme Conference and hear about Lyme from a variety of medical practitioners. Tickets are \$5.00 each if you order before February 1st. Go to <http://masslymeconference.com/> for details.

# Growing on Trees

## UMass Extension Green Directory

The 2015 UMass Extension Green Directory is a comprehensive guide to educational resources for beginning and established agriculture and green industry professionals in Massachusetts. This FREE guide can be used as a reference all year long!

Go to <http://ag.umass.edu/agriculture-resources/green-directory>.

The directory includes:

- Contact information for UMass Extension Agriculture and Landscape Specialists and Faculty.
- Upcoming UMass Extension conferences, seminars, and workshops.
- UMass Plant Diagnostic Lab sample submission information for insect, tick, disease, weed, and cultural problems.
- UMass Soil and Tissue Testing Lab information. (The lab has moved - new address listed.)
- Pesticide license information, including test dates, training workshops, and how to get a pesticide license.
- Phone resources to refer home gardener questions.
- Extension newsletters, web sites, and publications.
- Frequently used phone numbers related to agriculture and the green industries.

Available online at <http://ag.umass.edu/agriculture-resources/green-directory>

For a hard copy, call UMass Extension at (413) 545-0895 or email [eweeks@umext.umass.edu](mailto:eweeks@umext.umass.edu).

## 2015 Massachusetts Arbor Day Poster Contest Trees are Champions in My Community!

Each year, over 1,500 Massachusetts fifth graders participate in the Arbor Day Poster Contest. Fifth-graders create posters, and schools judge the posters and submit the winning poster to DCR. The winners reap rewards, including art supplies, ice cream, and a tree for their school. **Each year there is a theme, such as "Trees are Terrific and Good for Our Health!" (2014) or "Celebrate a Tree" (2013), selected to encourage students to think about trees in new ways.**

The 2015 theme, Trees Are Champions in My Community!, is designed to increase students' understanding of trees and the role trees play in their community.

**The deadline for this year's entries is April 1, 2015.**

Instructions will be posted at - <http://www.mass.gov/eea/agencies/dcr/conservation/forestry-and-fire-control/>



2014 winner from Pittsfield.

## New England Grows

February 4-6, 2015, Boston, MA

Held every February, New England Grows is renowned for its world-class education offerings and innovative trend spotting. Founded in 1993 by green industry professionals for green industry professionals, the educational conference and exposition gives participants unique access to targeted, industry-specific products, information, education, and connections. The New England Nursery Association, Massachusetts Arborists Association, Massachusetts Association of Landscape Professionals, and Massachusetts Nursery & Landscape Association are the organization's founding partners. For more information and to register, go to [www.newenglandgrows.org](http://www.newenglandgrows.org).

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We do our best to ensure that listings are accurate, but please check with program organizers for the most up-to-date information.

We mourn the passing of Bob Childs, a great friend, teacher, and educator at UMass Extension and the Stockbridge School of Agriculture. Thank you for everything, Bob.



Robert D. Childs Jr (1954 - 2015)

After battling cancer for nine years with grace, dignity, and courage, Bob, 60, died peacefully on January 30, surrounded by the love of family and friends. He is survived by his loving wife of 28 years, Deborah, and two sons, Andrew and Taylor. Bob was extremely proud of his sons and considered them to be his good friends.

He is also survived by his mother, Hazel of Greenfield, and sister Judith Tilton of Atkinson NH.

Bob graduated from Greenfield High School. He attended Greenfield Community College and then the Stockbridge School of Agriculture where he earned an Associates degree in Fruit and Vegetable Production. Bob earned his Bachelors and Masters degree in Entomology from the University of Massachusetts. He remained at the University in a variety of positions, spending the majority of his career there as both an instructor for the Stockbridge School and an Extension Specialist dealing with the green industry in Massachusetts. Bob was a dedicated teacher and truly enjoyed sharing his knowledge with others. Known as "Bobby Bugs", his love of teaching was obvious to both college students and adults. He lectured extensively to various groups including tree wardens, arborists, foresters, landscapers, nursery owners and workers, and garden clubs throughout New England. He was a member the Horticultural Club of Boston and served on the education committee of New England Grows for many years.

Bob enjoyed fishing, kayaking, hiking, biking, camping, cutting firewood, tending his garden, woodworking, exploring the outdoors, and Friday night cards. Bob had a great love of all things nature.

In lieu of flowers, donations may be made to the Robert Childs Student Assistance Fund care of the Massachusetts Tree Wardens and Foresters Association, P.O. Box 326, South Hadley, MA 01075, Cooley Dickinson VNA and Hospice, 168 Industrial Dr. Northampton MA 01060, or the nature conservation organization of your choice.

A celebration of Bob's life will be held Saturday, February 7 at 2:00 p.m. in the Marriott Room, Campus Center UMass Amherst.

Published in *The Recorder* on Feb. 3, 2015

# Growing on Trees

## Tree Care Industry Association (TCIA) Events

### Chipper Operator Workshop

Friday, February 27, 2015

8:00 a.m. - 12:30 p.m.

North Franklin, CT



Accidents involving brush chippers are a significant concern for tree care and landscape employers, the employees who operate the equipment, and manufacturers alike.

With support from Altec Industries, Bandit Industries, Morbark Inc., and Vermeer Corporation, TCIA has created the Chipper Operator Specialist credentialing course. For more information, go to [TCIA.org](http://TCIA.org).

### Free EHAP Workshop

Friday, February 27, 2015

8:30 a.m. - 5:00 p.m.

Portsmouth, NH

Free, one-day workshop funded by OSHA Susan Harwood Grant SH26301SH4.

Public employees are not eligible per OSHA Guidelines.

All arborists must be trained to recognize and avoid these electrical hazards. Qualified line-clearance arborists must have additional knowledge about electrical hazards and the special techniques used to work safely near electrical conductors.

TCIA was recently awarded a federal grant in the amount of \$139,528 from the Occupational Safety and Health Administration (OSHA). The grant, SH26301SH4, was awarded through the Susan Harwood Training Grant Program, which provides funding for nonprofit organizations to conduct in-person, hands-on training and educational programs for employers and workers on the recognition, avoidance, and prevention of safety and health hazards in their workplaces.

Eligibility: Full- or part-time commercial tree care company employees and owners. Unemployed workers who want to work in the industry. Public employees are not eligible per OSHA Guidelines.

Attendee limit is 30. Registrations from one company are capped at five, until one week before the workshop when all empty seats are released. Sorry, no walk-ins. Registration is transferrable.

An optional \$22.00 fee for lunch - Note: The Facility will not allow you to bring in food.

Sign-in starts at 8:00 AM

For more information, go to [TCIA.org](http://TCIA.org).

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## Evenings with Experts

A Public Lecture Series at the Cambridge Public Library

- First Wednesdays of each month, from February through May, 7:00 p.m. — 8:30 p.m.
- [Cambridge Public Library](#), 449 Broadway, Cambridge, MA
- Each talk will last about an hour with time for Q&A afterward. Author talks typically include sales of the speakers' books.

[Download a Flyer of the 2015 Programs](#)

Next lecture: February 4

Humans and Wildlife: The New Imbalance

Jim Sterba, [Author of Nature Wars](#)

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# Growing on Trees

## From the New England Chapter, International Society of Arboriculture

### Tree Risk Assessment Qualification Courses

The ISA Tree Risk Assessment Qualification (TRAQ) program provides an opportunity for professionals in the arboriculture industry to expand their knowledge through education and training in the fundamentals of tree risk assessment. This qualification promotes the safety of people and property by providing a standardized and systematic process for assessing tree risk. The results of a tree risk assessment can provide tree owners and risk managers with the information to make informed decisions to enhance tree benefits, health, and longevity. The course includes two days of instruction, followed by a half-day exam. We are pleased to be offering three courses in February and March 2015:

February 23-25, 2015 - Gray Coal Reception Room, Swan Point Cemetery, 585 Blackstone Boulevard, Providence, RI

February 26-28, 2015 - James L. Goodwin Forest & Park Center Meeting Room, 16 Meriden Rd, Rockfall, CT

March 2-4, 2015 - Tower Hill Botanical Garden, Boylston, MA

Registration information is available here: <http://newenglandisa.org/workshops.html>.

### Fids & Fibers Splicing Workshop

February 27 – March 1, Weare, NH

This is a three-day, non-stop, action-packed, hands-on arborist rope splicing training program. We will cover the most common rope products in our industry, from hollow-braid, to double-braid, to 24-strand, to rigging and rope tools. How to identify it, inspect it, and expand your mind with what can be made from it! [Register here](#).

### Arbor Day Grant

The Arbor Day Grant was created in 2007 to support small town and communities that needed help to build their Arbor Day programs. This grant presents one award in the amount of \$1,000.00 to a town, organization, or community that demonstrates need to promote and support their Arbor Day celebration.

Communities must complete and submit their Arbor Day Grant application by March 28, 2015.

Get more information and download the application at: [http://newenglandisa.org/arbor\\_day\\_grant](http://newenglandisa.org/arbor_day_grant).



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Prototype of new style of wind turbine that looks like a tree. Read the news blurb on page 11 and learn more at [cnn.com](http://cnn.com).

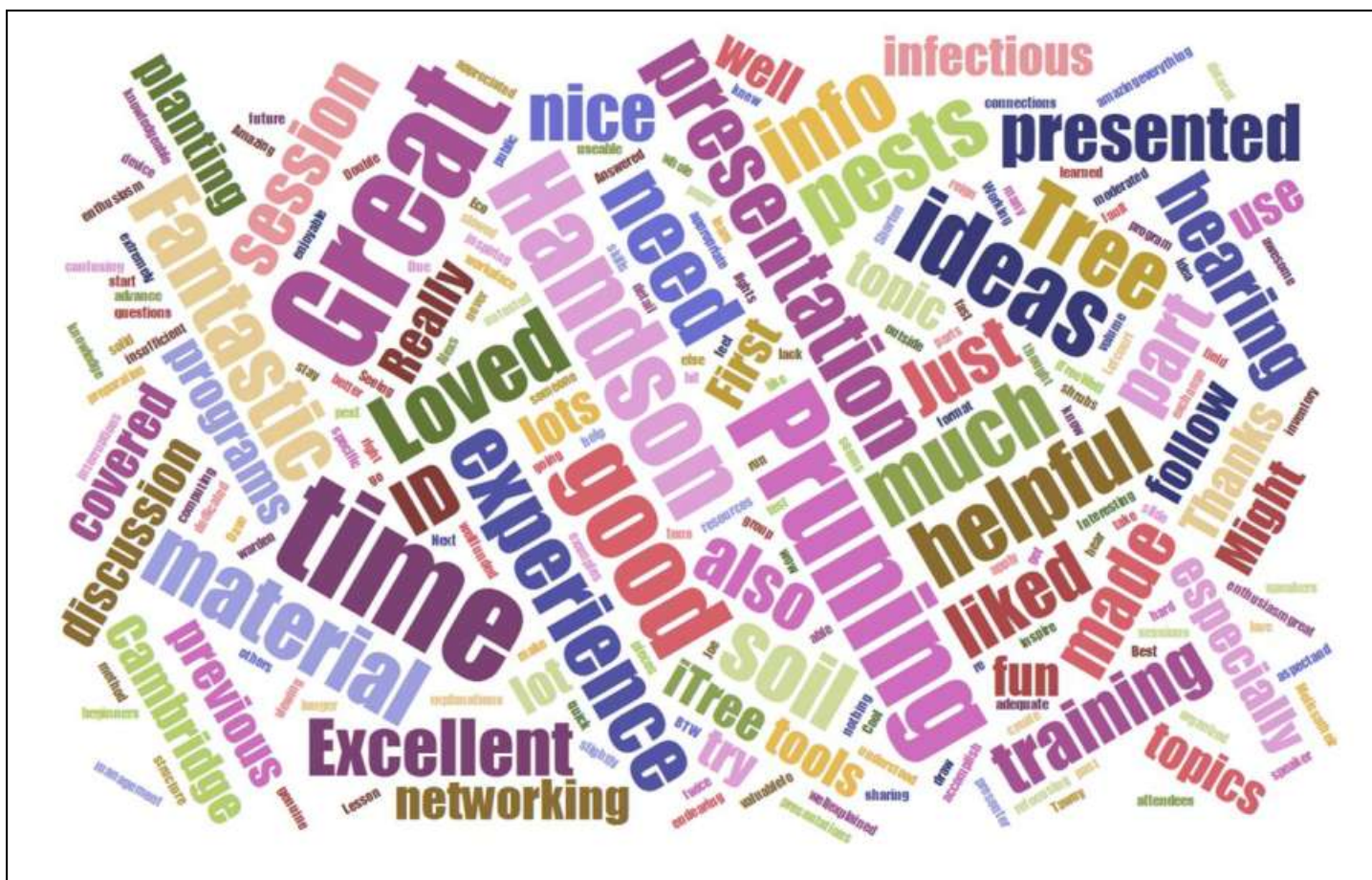


department of Conservation and Recreation



Save the Date—Tree Stewards Training 2015  
October 2-3, 2015

# Harvard Forest, Petersham



Word Cloud generated from evaluations from the 2014 training.

## Have a topic you'd like us to explore for the training?

Email Mollie Freilicher, [mollie.freilicher@state.ma.us](mailto:mollie.freilicher@state.ma.us)

# Gleanings

## Earth's Largest Living Monuments: Photographer Documents the Beauty and Majesty of the Planet's Oldest Trees

By Damien Gayle



Bristlecone pine: This tree could be one of several particularly old specimens in the U.S., which are believed to be up to 5,000 years old.

preserves, but just a few maintain a proud, though often precarious, existence in the midst of civilization.

**“Standing as the earth’s largest and oldest living monuments, I believe these symbolic trees will take on a greater significance, especially at a time when our focus is directed at finding better ways to live with the environment, celebrating the wonders of nature that have survived throughout the centuries,” she writes on [her website](#).**

**“By feeling a larger sense of time, developing a relationship with the natural world, we carry that awareness with us as it becomes a part of who we are.” Read the full story and see more of her work at the [Daily Mail](#).**

January 6, 2015—In the man-made world there is nothing like the vast, wizened majesty of an ancient tree. They are living links to the distant past whose very existence mocks the transience of our own mortality.

American photographer Beth Moon has spent the past 14 years travelling the world in a quest to document the world’s biggest, rarest, and oldest trees. Most have only survived thanks to their isolation on remote mountainsides, private estates, or nature

## UMass Extension Symposium: Pollinator Health for Agriculture and Landscapes

Thursday, March 26, 2015 - 8:45 a.m. to 4:00 p.m.  
UMass Amherst—Campus Center Auditorium

A full-day program for all sectors of the agriculture and landscape communities, including agricultural producers and grounds management professionals. University and national experts on pollinating insects, protection of pollinators, and pesticides will share the latest scientific research on factors affecting the health of honeybees and other pollinators and on best practices for sustaining populations and minimizing negative impacts with responsible production and land management strategies. Registration

Cost: \$65 per person, if two or more from same business, then \$40/person. Online registrations include a nominal processing fee. For more information, go to <http://extension.umass.edu/landscape/events/pollinator15>.

## EPA's Climate Resilience Evaluation and Awareness Tool

The Scenario-Based Projected Changes Map is an online map that provides easy access to localized scenarios of projected changes in annual total precipitation, precipitation intensity, annual average temperature, 100-year storm events, and sea-level rise from EPA's Climate Resilience Evaluation and Awareness Tool. To explore local climate change projection data across the United States, simply zoom in on a location of interest or type a location into the search field of the map. Climate change projection data within this map is provided by grid cell, illustrated as a square grid with 1/2-degree resolution, approximately 32 x 32 miles, for the United States. Explore the map at: <http://water.epa.gov/infrastructure/watersecurity/climate/scenario.cfm>.





## News

### New Wind Turbine Looks Like a Tree, Generates Power Silently

By Ryan Whitwam

January 3, 2015—Wind turbines used for power generation **work best when they're large and mounted up high** where wind speed is higher. This is not an aesthetically **appealing proposition, but it's the only way wind power** makes sense on the large scale right now. A French company is trying to change that with a contraption called the **Wind Tree. As you might guess, it's an array of wind** power turbines in the shape of a tree, and several of them will be deployed in Paris this coming March as a test. Read the full story at [Geek.com](http://Geek.com).

### Partnership Seeks to Protect Forest Land in Western Massachusetts

By Richie Davis

January 16, 2015—After working for more than a year with woodlot owners around Franklin County and finding a need for help improving forest health, the regional government will join 11 other organizations in a **conservation project to help region's economy. It could lead** eventually to a wood pellet factory to help schools and municipal buildings convert to locally produced wood heat, federal, state and regional officials announced Thursday. As its match for the U.S. Department of Agriculture's **\$638,000 Mohawk Trail Woodlands Sustainable** Forestry and Energy Partnership project, the state Department of Energy Resources is paying for a \$750,000 study to examine the sustainable supply and need for a wood-pellet factory to supply heat for schools, town buildings, and potentially businesses. Read the full story at the [Daily Hampshire Gazette](http://Daily Hampshire Gazette).

### Philadelphia Removing Ash Trees Ahead of Destructive Beetle's Arrival

January 19, 2015—The Philadelphia Department of Parks and Recreation is starting to chop down the city's ash trees in preparation for the emerald ash borer's arrival in the county. The invasive beetle from Asia has been marching east after landing in the U.S. Midwest more than a decade ago. "We have confirmed positives in Montgomery and Bucks counties, so at this point, it's most likely (in Philadelphia), we just haven't confirmed it yet," said Lawrence Barringer, an entomologist with the Pennsylvania Department of Agriculture. "There's no stopping it, sadly," said Joan Blaustein, Director of Urban Forestry and Ecosystem Management at the Philadelphia parks department. Blaustein's division is removing trees close to roads, hiking paths, and power lines that could

### Root Hydraulic Conductance Linked to Trees' Post-Transplant Recovery

January 14, 2015—Survival of field-grown trees grown for transplanting into landscapes depends on many factors, such as transplant timing and tree size. Species-specific characteristics also contribute to trees' ability to withstand and survive environmental stresses. In a newly published study researchers report on the relationship between tree roots' hydraulic conductance—the roots' ability to take up water from a growing medium and transport the water to other parts of a tree—and post-transplant recovery. The study was also designed to determine whether size and transplant timing affects trees' transplant recovery. Read the full story at [Phys.org](http://Phys.org).

### San Francisco Street Tree Problems to Get Worse Before They Get Better

San Francisco, a city built mostly on sand dunes, grasslands, swampy creeks and rock, has more street trees than ever – above [105,000](http://105.000) at last count. Its plan for caring for this urban forest, however, is a work-in-progress. Many of the trees alive today were planted in the 20th century, particularly in the late '50s and early '60s. Maintenance costs grew along with the urban forest over the decades, but budgets started shrinking in the early '80s. So the Department of Public Works (DPW) has been steadily offloading care for individual trees to local property owners, citing budget cuts. And many of the trees the DPW does still care for get pruned, staked, and otherwise **maintained far less often than they should. "Right now we're on a 10- to 12-year pruning cycle, on average, per tree," DPW spokesperson Rachel Gordon noted. "We'd like to be at a two- to five-year cycle, but because of years of budget cutbacks, we've not been able to do as robust pruning or as frequently." Read the full story and learn more about the city's urban forest plan at** [hoodline.com](http://hoodline.com).

hurt people if they were allowed to fall naturally. About 5 percent of Philadelphia's tree canopy is made up of ash trees susceptible to the invasive beetle, Blaustein said. She projects most of the trees will be dead within five years. "Other cities have documented that it kills about 95 percent of the trees," Blaustein said. "Once (the borer) has infested, it takes about three years for it to kill the tree, and then they just fall." The city has targeted 1,000 healthy trees to save by treating them with insecticides over the next ten years. Watch the news story at [newsworks.org](http://newsworks.org).



# On the Horizon

- Feb 4-6 New England Grows, Boston, MA, <http://www.newenglandgrows.org/>
- Feb 22-27 Municipal Forestry Institute, Portland, OR, [www.urban-forestry.com](http://www.urban-forestry.com)
- Feb 24-27 American Society of Consulting Arborists  
2015 Consulting Academy, Boston, MA, [www.asca-consultants.org/](http://www.asca-consultants.org/)
- Feb 25 **Urban Forestry Today Webcast: "Structural Soil: An Introduction and Update"** [www.joinwebinar.com](http://www.joinwebinar.com) (input code #435513119)
- Feb 25-26 ELA Conference & Eco-Marketplace, Springfield, MA, [www.ecolandscaping.org](http://www.ecolandscaping.org)
- Mar 10 UMass Community Tree Conference, Amherst, MA, [www.umassgreeninfo.org](http://www.umassgreeninfo.org)
- Mar 21 Mass Land Conservation Conference, Worcester, MA [www.masslands.org](http://www.masslands.org)
- Mar 26 Urban Forestry Today Webcast: Structural Soils in the **Urban Environment: The Practitioner's Perspective**, [www.joinwebinar.com](http://www.joinwebinar.com) (and input code #689839007).
- Mar 26 Symposium: Climate Change and the Future of Plant Life, Cambridge, MA, <http://www.newenglandwild.org/sym>
- Mar 26 [Pollinator Health for Agriculture and Landscapes](http://www.umassgreeninfo.org), UMass Amherst, [www.umassgreeninfo.org](http://www.umassgreeninfo.org)
- April 1 Deadline: Intent to Apply DCR [Urban and Community Forestry Challenge Grant](http://www.dcr.state.ma.us/urbanandcommunityforestrychallengegrant)
- April 1 Deadline: Arbor Day Poster Contest
- April 24 Arbor Day in Massachusetts
- May 1 Deadline for Applications: [Urban and Community Forestry Challenge Grants](http://www.dcr.state.ma.us/urbanandcommunityforestrychallengegrant)
- Oct 2-3 **SAVE THE DATE—2015 DCR Tree Steward Training**

Have something to submit to the Citizen Forester?  
Send it to [mollie.freilicher@state.ma.us](mailto:mollie.freilicher@state.ma.us).

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**If you have a topic you'd like to see covered or** want to submit an item to *The Citizen Forester* (article, photo, event listing, etc.), please contact [Mollie Freilicher](mailto:Mollie.Freilicher@state.ma.us) or click [here](#).

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